

DIRECT-VIEW TYPE LIQUID CRYSTAL DISPLAY

Publication number: JP7128663

Publication date: 1995-05-19

Inventor: MURAI HIDEYA; GOTO TOMOHISA; NAKADA DAISAKU

Applicant: NIPPON ELECTRIC CO

Classification:

- international: G02F1/137; G02F1/1333; G02F1/1335; G02F1/13357;
G02F1/13; (IPC1-7): G02F1/137; G02F1/1335

- European:

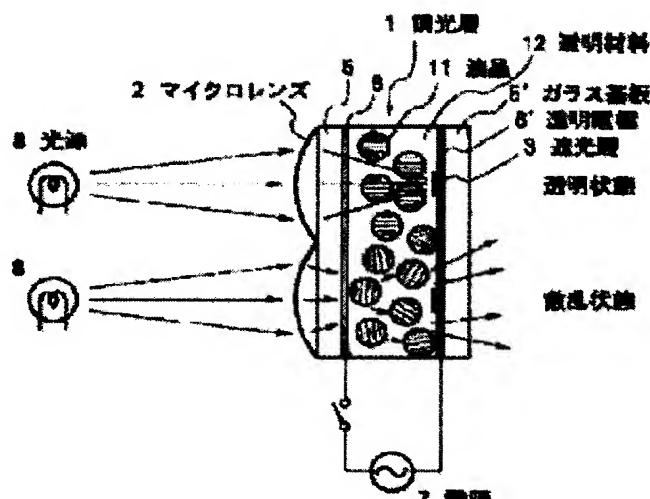
Application number: JP19930273930 19931102

Priority number(s): JP19930273930 19931102

[Report a data error here](#)

Abstract of JP7128663

PURPOSE: To provide a new direct-view type liquid crystal display with high brightness and with a wider view angle. CONSTITUTION: A light control layer 1 using a liquid crystal is inserted between two sheets of substrates 5, 5' provided with transparent electrodes 6, 6', and a lens 2 is provided on the substrate 5 of an incident beam side, and a light shielding layer 3 is provided on the opposing substrate 5'. The lens 2 and the light shielding layer 3 are mounted so that when the light control layer 1 is in a transparent state, a beam of light from a light source 8 is bended by the lens 2, and focuses on the light shielding layer 3. By that a voltage applied by a power source 7 is changed, the light control layer 1 is changed between a transmission (transparent) state and a scattered state. In the transmission state, since the beam from the light source 8 is converged by the lens 2, and focuses on the light shielding layer 3, the beam is interrupted, and a picture on the display becomes darker. When the light control layer is in the scattered state, since the beam transmitting through the lens 2 is scattered by the light control layer 1, focuses on no light shielding layer 3, and is transmitted through the part without the light shielding layer of the opposing substrate 5', and the picture on the display becomes brighter.



Data supplied from the **esp@cenet** database - Worldwide